



Claims

[c1]

A system for extending a separation range of a keyboard, a video display and a mouse from a PC, the system comprising:

a PC having an expansion slot therein;

said PC having PC-mounted conventional keyboard, video display and mouse connectors thereon adapted and configured for coupling with conventional keyboard, video display and mouse connection cables;

said expansion slot being configured and adapted for provision of power and digital information when said expansion slot is occupied;

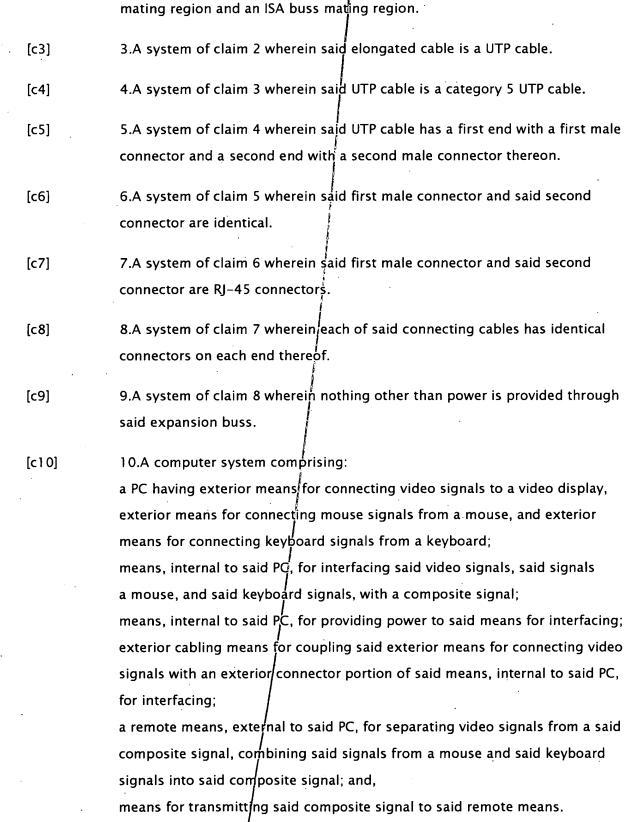
a keyboard, video display and mouse extender expansion card which is adapted and configured for combining and separating keyboard, video and mouse signals; said keyboard, video display and mouse extender expansion card disposed in said expansion slot, and receiving power therefrom;

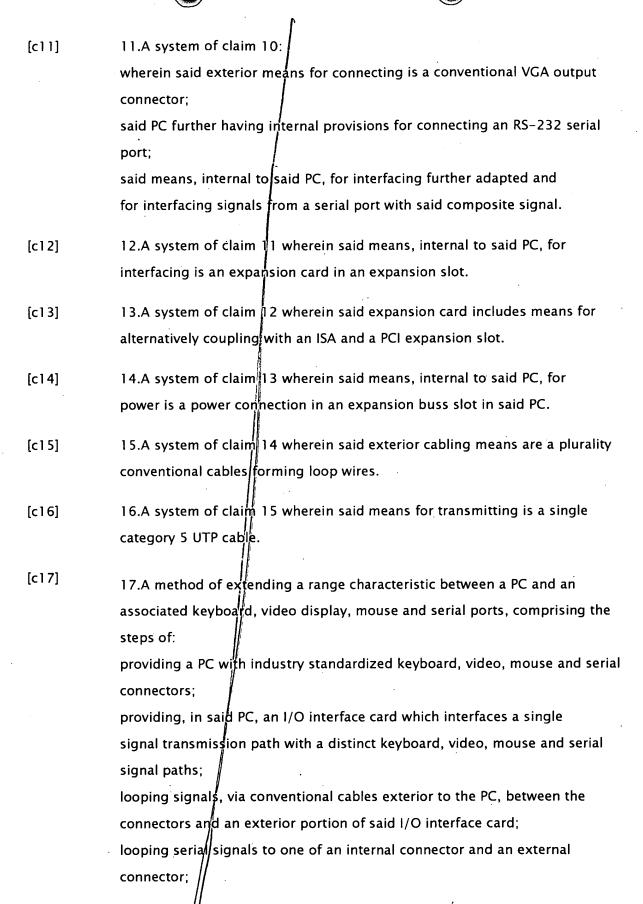
said keyboard, video display and mouse extender expansion card having extender card mounted conventional keyboard, video display and mouse connectors thereon which are coupled to said PC-mounted conventional keyboard, video display and mouse connectors via connecting cables having conventional keyboard, video display and mouse connectors thereon; said keyboard, video display and mouse extender expansion card further having an extender card mounted elongated cable jack for receiving an elongated cable therein which carries previously independent keyboard, display and mouse signals which have been combined; said elongated cable having a first end and a second end; and,

a remote module/ receiver/ transmitter coupled to said second end of said elongated cable, said remote module/ receiver/ transmitter adapted and configured to combine previously independent signals into a combined and to separate earlier combined signals for distribution to keyboard, video display and mouse devices.

[c2]

2.A system of claim 1 wherein said keyboard, video display and mouse extender expansion card has disposed on opposing sides thereof, a PCI buss









coupling, via a single elongated cable, said I/O interface card with a remote exterior composite signal to distinct signal interface module; and, providing distinct keyboard, video, mouse, and serial connections from said remote exterior composite signal to distinct signal interface module.

[c18]

18.A method of claim 17 further comprising the step of powering said I/O interface card through a power connection in an expansion slot in said PC.

[c19]

19.A method of claim 18 further comprising the step of inserting said PC a rack of industrial PCs, without including with said PC a local exterior coupled to said PC by a plurality of cables.

[c20]

20.A system for extending a separation range of a keyboard, a video display and a mouse from a PC, the system comprising:

a rack for receiving therein industrial PCs;

a PC, disposed in said rack, said PC having an expansion slot therein; said PC being an industrial PC having sensors therein which monitor fan speeds and a temperature about a microprocessor in said PC; said PC having PC-mounted conventional keyboard, video display, mouse serial connectors thereon adapted and configured for coupling with conventional keyboard, video display, mouse and serial connection cables; said expansion slot being configured and adapted for provision of power and digital information when said expansion slot is occupied;

a half-length planar keyboard, video display, mouse and serial extender expansion card which is adapted and configured for combining and keyboard, video display, serial and mouse signals; said keyboard, video display, mouse and serial extender expansion card disposed in said slot, and receiving power therefrom;

said keyboard, video display, mouse and serial extender expansion card having extender card mounted conventional keyboard, video display, mouse and serial connectors thereon which are coupled to said PC-mounted conventional keyboard, video display, mouse and serial connectors via connecting cables having conventional keyboard, video display, mouse and

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serial connectors thereon;

said keyboard, video display, mouse and serial extender expansion card further having an extender card mounted elongated cable jack for receiving elongated cable therein which carries previously independent keyboard, display, mouse and serial signals which have been combined; said elongated cable having a first end and a second end;

a remote module/receiver/transmitter coupled to said second end of said elongated cable, said remote module/receiver/transmitter adapted and configured to combine previously independent signals into a combined and to separate earlier combined signals for distribution to keyboard, video display, mouse and serial devices;

wherein said keyboard, video display, mouse and serial extender expansion card has disposed on opposing sides thereof, a PCI buss mating region and a ISA buss mating region;

wherein said elongated cable is a UTP cable;

wherein said UTP cable is a Category 5 UTP cable;

wherein said UTP cable has a first end with a first male connector and a second end with a second male connector thereon;

wherein said first male connector and said second male connector are identical;

wherein said first male connector and said second male connector are RJ-45 connectors:

wherein each of said connecting cables has identical connectors on each end thereof; and,

wherein said keyboard, video display, mouse and serial extender expansion card is provided only power through said expansion bus.

[c21]

21.A system of claim 1 wherein:

said keyboard, video display and mouse extension card is further adapted configured for combining and separating serial signals; and said extender card mounted elongated cable jack is further adapted and configured for receiving an elongated cable therein which carries previously

independent keyboard, video display, mouse and serial signals which have been combined.

- [c22] 22.A system of claim 16 further including on said expansion card means for coupling to a segial port.
- [c23] 23.A system of claim 22 wherein said means for coupling to a serial port is internal to said PC.